



Industrie Service

**Choose certainty.
Add value.**

Wind Site Assessments by TÜV SÜD – Guaranteed Success for your Wind Farm Project.

Does the project really offer economic efficiency? This is the key question faced by all project developers involved in the establishment of a wind farm. TÜV SÜD's wind energy experts help you to answer this question and support you reliably throughout all stages of your project ...

... by supplying wind potential studies:

Even when site-specific measurements are not yet available or cover only a relatively short time span in the early stage of a project, at TÜV SÜD we can draw on our 20-plus person-years of experience in the wind energy sector and provide initial estimates of the wind potential in a certain region. If necessary, we underpin our analyses with measured data to higher levels of precision in the course of the project.

... by optimising wind farm layout:

Following evaluation of site-specific wind measurement, the distribution of wind direction may frequently differ from that

expected in the runup to the project. Using especially designed software, we review the configuration of your project in order to ensure optimum utilisation of wind resources. We will be happy to advise you on maximising your energy yields.

... by providing energy yield forecasts – as basis for your financing (wind site assessments):

To pave the way for the successful marketing of your project, we act as your third-party partner and prepare 'bankable' expert reports which comply with the state of the art and current standards and directives.

As TÜV SÜD's wind energy experts, we offer longstanding international experience in wind site assessments. We support your projects with the full scope of our expertise. This minimises risks and accelerates the realisation of your wind farm project. We will be happy to advise you in more detail. Contact us. We provide international services.



Industrie Service



www.tuev-sued.com/windenergy

Choose a Powerful Partner for Your Wind Site Assessment: TÜV SÜD

TÜV SÜD Services

- On-site inspection; input data is recorded with the help of high-precision measurement instruments (laser measurement, GPS positioning).
- Assessment of site conditions on the basis of topographic maps and satellite data (immediate and wider environment).
- Comparative calculations with existing wind farms in the vicinity to ensure the reliability of the selected model parameters and minimise uncertainty.
- Monitoring of stations for long-term meteorological measurements to validate the extrapolation period of the site-specific wind measurement.
- Inclusion of the data collected at meteorological ground stations worldwide and geostrophic wind data for an extended long-term correlation of site-specific wind measurement.
- Use of a sophisticated correlation method to ensure maximum certainty even where little data is available.
- Current standards (BWE, IEC, IEA, Measnet, FGW, etc.) and directives.

- Comprehensive presentation of results in tabular and graphic form (e.g. wind profile, energy yields, wind farm efficiency).
- Detailed assessment of relevant uncertainties, including graphic illustration of transgression probabilities to ensure impartial evaluation of the certainty of yield.

Both manufacturers and owners/operators of plants and installations appreciate TÜV SÜD as an internationally leading provider of engineering and test services, with a staff of 2,300 specialising in assessment and advancement of systems. TÜV SÜD's strengths include unparalleled interdisciplinary engineering know-how and outstanding familiarity with all relevant directives and standards.

TÜV SÜD's first-class reputation, recognition and acceptance throughout the world are built on technical expertise, high standards of economic and ecological project realisation, impartiality and objectivity. For your benefit.

TÜV SÜD. Choose certainty. Add value.

TÜV SÜD Industrie Service GmbH • Tel./Fax: +49 (0)941 460212-0 / -29
Contact: Peter H. Meier • E-mail: peter-h.meier@tuev-sued.de